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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,338	09/18/2000	Erich Hell	P00,1732	3969

7590 12/03/2001
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EXAMINER	
KAO, CHIH-CHENG G	
ART UNIT	PAPER NUMBER
2882	

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/664,338

Applicant(s)

HELL ET AL.

Examiner

Glen Kao

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "air gap 21" in Figure 1 as noted, for example, on Page 8, line 20. Correction is required.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" and "24" have been used to designate both air gaps and annular guide devices in Figures 1 and 2. Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Based on the broadest interpretation of the claim, it is uncertain as to what the covering is exactly circumferential around. Based on the interpretation from the specification and drawings, changing the phrase "a circumferential covering" to the phrase "a covering circumferential around the rotatable axis" would obviate this rejection.
4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

Art Unit: 2882

the invention. Based on the broadest interpretation of the claim, it is uncertain as to what the coverings are exactly circumferential around. Based on the interpretation from the specification and drawings, changing the phrase "circumferential coverings" to the phrase "coverings circumferential around the rotatable axis" would obviate this rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 7-10, 12, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Deucher et al. (US Patent 5,610,968). Deucher et al. discloses a computed tomography apparatus (Fig. 1) comprising: a rotatable gantry (Fig. 1, "C"), an x-ray source emitting heat (Fig. 1, "B"), an x-ray detector (col. 3, lines 56-58), a ring-like heat exchanger comprising at least one heat exchange element (Fig. 2, #30 and 34), rotatable with said gantry, having a flow path with a heat transfer medium, which is connected to said x-ray source (Abstract, lines 6-8), and a second heat exchanger, stationary and annularly surrounding the first heat exchanger (Fig. 2, #40 and 48) and having a flow path with a heat transfer medium (Abstract, lines 10-16), to transfer heat from the first heat exchanger to an exterior of said gantry (Abstract, lines 10-12) with at least one heat exchange element and annular guide devices (Fig. 4, #56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deucher et al. as applied to claims 1 and 8 above.

7. Regarding claims 5 and 13, Deucher et al. discloses an apparatus as recited above. However, Deucher et al. does not specifically disclose at least two heat exchange elements for the first and second heat exchanger.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have at least two heat exchange elements with the apparatus of Deucher et al., since mere duplication of the essential working parts of a device involves only routine skill in the art. One would be motivated to have two heat exchange elements to prevent a localized area from being extremely high in temperature, which may cause thermal damage.

8. Regarding claim 11, Deucher et al. discloses an apparatus as recited above. However, Deucher et al. does not specifically disclose the second heat exchanger disposed axially offset, along said rotation axis, and attached to the first heat exchanger.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the second heat exchanger disposed axially offset, along said

Art Unit: 2882

rotation axis, and attached to the first heat exchanger with the apparatus of Deucher et al., since in would only involve routine skill in the art to rearrange parts of an invention and form in one piece an article which has formerly been formed in two pieces and put together. One would be motivated to rearrange the heat exchangers to conserve space laterally to insure the machine fits in a short room. One would be motivated to attach the heat exchangers together to conserve space in the horizontal direction for more floor space.

9. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deucher et al. as applied to claims 5 and 13 above, and further in view of Sribar et al. Deucher et al. suggests an apparatus as recited above. However, Deucher et al. does not specifically disclose circumferential coverings disposed between at least two heat exchange elements.

Sribar et al. teaches circumferential coverings disposed between at least two heat exchange elements (Fig. 1, #30).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to have the circumferential coverings of Sribar et al. with the suggested apparatus of Deucher et al., since one would be motivated to have a support structure as shown by Sribar et al. (Title) to avoid damage.

Allowable Subject Matter

10. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2882

The following is a statement of reasons for the indication of allowable subject matter. Prior art does not disclose or fairly suggest a plurality of inter-engaging annular guide devices for guiding an airstream from the first to second heat exchanger incorporated with all the limitations of claims 1, 8, and 11.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glen Kao whose telephone number is (703) 605-5298. The examiner can normally be reached on M - Th (8 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gk
November 16, 2001



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